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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,870	12/10/2004	Alain Domard	3952-72	8468
23117	7590	08/17/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			GRAY, JILL M	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/508,870	Applicant(s) DOMARD ET AL.	
	Examiner Jill M. Gray	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 8 and 9 is/are allowed.
- 6) ☒ Claim(s) 10, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 11-14 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicants' amendment of July 28, 2006 has been entered. Accordingly, the finality of the last Office Action has been withdrawn and this application reopened for prosecution.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, claims 15 and 16 are indefinite because these claims depend on claim 10 which sets forth the process step of "forming an aqueous chitosan-based solution comprised of between 6 and 30% by weight of the prehydrolyzed chitosan obtained according to step (a)..." Claims 15 and 16 require prehydrolyzed chitosan to be present in the aqueous coating layer in a certain amounts in dry matter. This is indefinite because it is not clear if the 6 to 15 g/m² in dry matter or 7 g/m² in dry matter is the amount of prehydrolyzed chitosan that is added to water to result in a concentration of 6 to 30% by weight prehydrolyzed chitosan. Also, (c) sets forth the process step of "coating the aqueous chitosan-based solution onto a face of a substrate formed of organic and/or inorganic fibers to provide a chitosan-based coating layer on the substrate which contains at least 80% by weight of chitosan. It is not clear how the

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prehydrolyzed chitosan in dry matter is present in the aqueous coating layer. Do claims 15 and 16 refer to the addition of dry prehydrolyzed chitosan to the coating layer?

Applicants have indicated on the record in their remarks of July 28, 2006 that the "coating layer" of claims 15 and 16 is the *dried* residue. However, the process of claim 10 does not produce a dried residue and one cannot readily infer that the coating layer is dried or a dried residue.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: drying the aqueous coating layer, in view of applicants' arguments set forth in the amendment of July 28, 2006, which states that "[c]laims 2, 15, and 16: These claims require that the "coating layer" (which is the *dried* residue of an aqueous chitosan-based solution)..."

Remarks

Applicants, in their arguments of July 28, 2006, have used the terminology of "mass density". Clarification on this record is requested as to how this language is being defined. "Mass density" is widely used in the art as analogous to and defined by density, i.e. mass/volume. This does not appear to be consistent with applicants' usage and clarification is requested.

4. Claims 1-6 and 8-9 are allowed over the prior art currently of record.

5. Claims 11-14 and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the

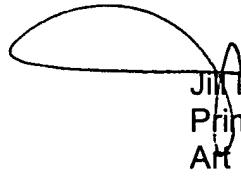
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limitations of the base claim and any intervening claims and any 112 corrections if necessary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill M. Gray whose telephone number is 571-272-1524. The examiner can normally be reached on M-Th and alternate Fridays 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jill M. Gray
Primary Examiner
Art Unit 1774

jmg